

Improving triple play services using multi protocol label switching technology.

Abstract

Problem statement: Traditional IP networks have many limitations such as routing tables, which can be complex and time consuming. These limitations affect the performance of the network in some applications of triple play services (i.e., voice, video and data) which are characterized as time sensitive applications. Thus, Multi Protocol Label Switching (MPLS) technology has been proposed to speed up the traffic flow in the network using labels. **Approach:** In this study, an experiment using the Network Simulator NS-2 was performed to evaluate the impact of MPLS technology on the Triple Play Services based on the average throughput of the network, total number of packets received at destination nodes and packet loss rates and this is compared to that provided by traditional IP networks. **Results:** The results showed that MPLS performs better since it utilizes all the available paths to the destinations. **Conclusion:** MPLS allows Internet Services Providers (ISPs) to provide better triple play services for end-users.

Keyword: IP Networks; VoIP; IPTV; FTP; NS-2.